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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/735,970	12/15/2003	Joseph Edward Fattori	IR 7485-00	3383

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EXAMINER

BALSIS, SHAY L

ART UNIT	PAPER NUMBER
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1744

DATE MAILED: 03/16/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/735,970

Applicant(s)

FATTORI, JOSEPH EDWARD

Examiner

Shay L. Balsis

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 May 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>10/18/04; 5/20/05</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites the limitation "said shaft" in line 17. There is insufficient antecedent basis for this limitation in the claim. It is unclear whether the applicant means motor shaft or drive shaft.

Claim 1 recites the limitation "said treating instrument" in lines 11-12. There is insufficient antecedent basis for this limitation in the claim. It is suggested to change "instrument" to ---implement---.

Claim 1 recites the limitation "said implement elements" in lines 16. There is insufficient antecedent basis for this limitation in the claim.

Claim 13, states that the "control slot is of straight linear shape parallel to said outer surface of said head" and it is unclear what is meant by this limitation. As shown in the applicant's figure 1, it would appear that the control slot is linear shaped but located perpendicular to the outer surface of the head. Please clarify

Claim Objections

Claim 2 is objected to because of the following informalities: Line 1 reads "control sot" however it should read ---control slot---. Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-2, 4-5, 10-12 and 18 are rejected under 35 U.S.C. 102(e) as being anticipated by Lev et al. (USPN 6895625).

With regards to claim 1, Lev teaches a motor (14) with a rotatable motor shaft (102). There is a cam (106, 114) driven around an axis of rotation by the motor shaft. The cam has an outer surface with a closed loop cam track (114). There is a treating implement head (30) remote from the cam and a control member (100) disposed between the cam and the treating implement head. The control member has a control slot extending therethrough. There is a pivot member (82) located between the control member and the treating implement head. The pivot member has a through hole also. The treating implement has a drive connection (figures 9 and 10) mounted to the treating implement and disposed toward the pivot member. There is a drive shaft (38) having a drive end and driven end. The drive end is freely mounted in the cam and the drive

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shaft extends through the control slot and the through hole in the pivot member. The driven end of the drive shaft is mounted to the drive connection of the implement head (figures 9 and 10).

With regards to claim 2, the control slot is a straight linear shape (extends through the length of the control member).

With regards to claims 4 and 5, the cam track is non-circular and is oval (figure 3).

With regards to claim 10, the drive connection includes a slot (132, figure 9) and the driven end of the drive shaft terminates into a ball (134) mounted in the implement head slot.

With regards to claim 11, the drive shaft extends through a flexible bearing in the through hole of the pivot member.

With regards to claim 12, the treating implement is a toothbrush, where the head is a cleaning head having an outer surface with cleaning elements (18) extending outwardly from the outer surface.

With regards to claim 18, the drive system is of straight linear shape, which is non-parallel to the outer surface of the head. Since the cam rotates and the drive shaft follows that rotation, there are multiple positions when then drive system is not parallel to the outer surface of the head.

Claims 1-3, 6, 9, 11-14 and 18 are rejected under 35 U.S.C. 102(b) as being anticipated by Bigler (DE 19802904).

With regards to claim 1, Bigler teaches a motor (not shown) with a rotatable motor shaft (4). There is a cam (6) driven around an axis of rotation by the motor shaft. The cam has an outer surface with a closed loop cam track (where 7 and 6 are connected). There is a treating implement head (9) remote from the cam and a control member (8) disposed between the cam

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and the treating implement head. The control member has a control slot (14) extending therethrough. There is a pivot member (16) located between the control member and the treating implement head. The pivot member has a through hole (15) also. The treating implement has a drive connection (where 7 and 9 connect on figure 2) mounted to the treating implement and disposed toward the pivot member. There is a drive shaft (7) having a drive end and driven end. The drive end is freely mounted in the cam and the drive shaft extends through the control slot and the through hole in the pivot member. The driven end of the drive shaft is mounted to the drive connection of the implement head (figure 2).

With regards to claim 2, the control slot is a straight linear shape (figure 3).

With regards to claim 3, the cam track is circular (figure 3 shows how the connection between 7 and 6 is circular).

With regards to claim 6, the control slot extends radially from the axis of rotation (figure 3).

With regards to claim 9, the cam track does not extend beyond the axis of rotation (figure 2).

With regards to claim 11, the drive shaft extends through a flexible bearing in the through hole of the pivot member.

With regards to claim 12, the treating implement is a toothbrush, where the head is a cleaning head having an outer surface with cleaning elements (12) extending outwardly from the outer surface.

With regards to claim 13, the control slot is a straight linear shape parallel to the outer surface of the head. Bigler's control slot is set up in the same orientation with respect to the head

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as the applicant's control slot however, examiner believes it should read perpendicular rather than parallel.

With regards to claim 14, the cam track is circular (figure 3 shows how the connection between 7 and 6 is circular).

With regards to claim 18, the drive system is of straight linear shape which is non-parallel to the outer surface of the head (figure 2).

Claims 1-3, 9, 11-18 are rejected under 35 U.S.C. 102(b) as being anticipated by Flatt (USPN 3029651).

With regards to claim 1, Flatt teaches a motor (not labeled) with a rotatable motor shaft (5). There is a cam (6) driven around an axis of rotation by the motor shaft. The cam has an outer surface with a closed loop cam track (8). There is a treating implement head (13, 16, 15) remote from the cam and a control member (23) disposed between the cam and the treating implement head. The control member has a control slot (24) extending therethrough. There is a pivot member (20) located between the control member and the treating implement head. The pivot member has a through hole (22') also. The treating implement has a drive connection (11) mounted to the treating implement and disposed toward the pivot member. There is a drive shaft (10) having a drive end and driven end. The drive end is freely mounted in the cam and the drive shaft extends through the control slot and the through hole in the pivot member. The driven end of the drive shaft is mounted to the drive connection of the implement head (figure 1).

With regards to claim 2, the control slot is a straight linear shape (figure 4).

With regards to claim 3, the cam track is circular (figure 5).

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With regards to claim 6, the control slot extends radially from the axis of rotation (figure 4).

With regards to claim 9, the cam track does not extend beyond the axis of rotation (figure 5).

With regards to claim 11, the drive shaft extends through a flexible bearing in the through hole of the pivot member.

With regards to claim 12, the treating implement is a toothbrush, where the head is a cleaning head having an outer surface with cleaning elements (15) extending outwardly from the outer surface.

With regards to claim 13, the control slot is a straight linear shape parallel to the outer surface of the head. Flatt's control slot is set up in the same orientation with respect to the head as the applicant's control slot however, examiner believes it should read perpendicular rather than parallel.

With regards to claim 14, the cam track is circular (figure 5).

With regards to claim 15, the pivot member is a thin plate and the control member is a thin disk (figure 4 and figure 5).

With regards to claim 16, the control slot extends radially from the axis of rotation and the cam track does not extend beyond the axis of rotation (figure 4 and 5).

With regards to claim 17, the head is oscillated back and forth over a range of motion no greater than 30 degrees with respect to the axis of rotation as shown by the dashed lines in figure 1.

With regards to claim 18, the drive system is of straight linear shape, which is non-parallel to the outer surface of the head (figure 1). The dashed lines in figure 1 shows how the system is straight and non-parallel to the outer surface of the head.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bigler in view of Prineppi (PGPub 2003/0066145).

Bigler teaches all the essential elements of the claimed invention however fails to teach that the driven end of the drive shaft comprises a ball joint. Prineppi teaches a toothbrush with a drive shaft (14) having a ball joint (21) located on the driven end. The ball joint fits with a slot on the head. It would have been obvious to modify Bigler's driven end of the drive shaft to have a ball joint as taught by Prineppi so wear is minimized between the driven end of the drive shaft and the slot in the toothbrush head ([0026]).

Claims 7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bigler or Flatt in view of Stemme (USPN 3538530).

Bigler or Flatt teach all the essential elements of the claimed invention however fail to teach that the control slot is non-straight or arcuate. Stemme teaches a toothbrush with a control member having an arcuate shaped control slot (figure 3 and 4). It would have been obvious to modify Bigler or Flatt's control slot so that it was non-linear or arcuate as taught by Stemme

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since the arcuate shape leads to a figure eight motion. The figure eight motion will allow the bristles to move from one gum over the teeth towards the other gum, only to thereupon reverse their movement. This is the brushing motion that is preferred by dentist for properly cleaning teeth (col. 3, lines 60-71).

Conclusion


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shay L. Balsis whose telephone number is 571-272-1268. The examiner can normally be reached on 7:30-5:00 M-Th, alternating F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gladys Corcoran can be reached on 571-272-1214. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Slb
3/8/06


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PRIMARY EXAMINER